

17618

11920

3 Hours / 100 Marks

Seat No.

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- Instructions* – (1) All Questions are *Compulsory*.
- (2) Answer each next main Question on a new page.
- (3) Illustrate your answers with neat sketches wherever necessary.
- (4) Figures to the right indicate full marks.
- (5) Assume suitable data, if necessary.
- (6) Mobile Phone, Pager and any other Electronic Communication devices are not permissible in Examination Hall.

Marks

- 1. a) Attempt any THREE of the following:** **12**
- (i) State general safety precautions and procedures while using
- (1) F.I.P. tester machine (calibration)
- (2) Measuring tools
- (ii) State functions of following tools and equipments.
- (1) Wheel aligner
- (2) Torque wrench
- (3) Arbor press
- (4) Tyre changer
- (iii) State types of maintenance and write their applications.
- (iv) Write procedure of engine vacuum test.

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- b) **Attempt any ONE of the following:** **6**
- (i) Draw a layout of modern workshop and list tools and equipments required.
 - (ii) Describe Breakdown maintenance, by giving two wheeler vehicle example.
- 2. Attempt any FOUR of the following:** **16**
- a) Describe work orders file.
 - b) Describe general servicing procedure.
 - c) State four generally observed troubles related to engine lubrication system.
 - d) Describe how to check engine smoke and coolant level.
 - e) Describe tuning of engine.
 - f) Write procedure for checking and servicing of piston and piston rings.
- 3. Attempt any FOUR of the following:** **16**
- a) Give procedure for Injector tune-up.
 - b) Explain CRDI injector servicing.
 - c) 'External oil leakage' what will be probable causes? Write suitable remedies for them.
 - d) Describe the procedure for service of fuel feed system.
 - e) Describe the procedure to carry out the leakage test of cylinder.
- 4. a) Attempt any THREE of the following:** **12**
- (i) Write diagnosis of fault - "Engine emits excessive black smoke".
 - (ii) Describe how to check and adjust fan belt tension.
 - (iii) Describe how to carry FIP phasing and calibration.
 - (iv) Describe clutch slipping troubleshooting causes and remedies.

- b) **Attempt any ONE of the following:** **6**
- (i) Describe any two causes and its remedies for starting system failure.
 - (ii) List four complaints of Body. Describe the procedure to rectify any one of Body complaints.
- 5. Attempt any FOUR of the following:** **16**
- a) What is meant by backlash in ring gear? State the procedure for checking differential ring gear run out.
 - b) Describe checking of synchromesh unit.
 - c) Describe any two gearbox. Troubleshooting - causes and remedies.
 - d) What will be the causes for “Hard gear shifting”? Suggest suitable remedies.
 - e) Explain how will you check -
 - (i) Backlash in differential gears
 - (ii) Tooth contact between ring gear and pinion.
 - f) Write procedure for patch work.
- 6. Attempt any FOUR of the following:** **16**
- a) Describe inspection of master cylinder and wheel cylinder.
 - b) Draw layout of workshop for specialized work wheel balancing and alignment.
 - c) Write procedure of parking brake adjustment.
 - d) What will be the causes if vehicle pulls to one side.
 - e) Write procedure of wheel balancing.
 - f) Describe procedure of tyre retreading.
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